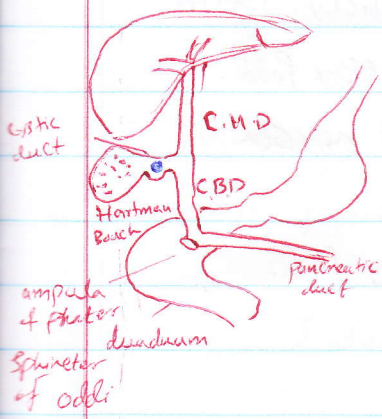
.. Surgical.

- Gall bladder disease.
- acute pancreatitis.
- acute appendicitis.
- abdominal examination.
- Breast cancer.
- Liver abcess.
- Necrotizing fascitis.
- Madora foot.
- Deep vein thrombosis.
- Diabetic foot.
- cellulitis and erysepillus.
- abdominal hernias.

Gall bladder Stone
Cholelithiasis



- The Bile consist of Cholestrole and bilirubin
- under stimulation of Cholecystokinin gallbladder Contract & empty the bile into the duodenum to digest "degrade" the fatty food.

- Causes :- Stones are of two types :-

yellow-green ① cholestrol Stone ⇒ obesety, fatty food, Diabetes Hyperlipidemia, Oral contraceptives, Pregnants, Crohn

Black ② pigmet stone "bilirubin" ⇒ hemolysis ex:. SCA, thalapemia, Cardiac hemolytic an. spherocytosis.

- After a fatty meal cholecystokinin stimulate the gall bladder to contract which make stone to move & may obstruct the biliary tract anywhere mostly at the cystic duct which lead to feeling of Pain.

History :

* acute Rt upper quadrant pain radiating to the tip of shoulder or subscapular or inter scapular region. "Colicky Pain"
  precipitated by eaty fatty food.
  " when motion it he get nausea "
* Nausea , vomiting
* anoxia ~~toward~~ toward fatty food.
* ~~fever~~.

Examination

* Murphy Sign
  feel the fundus of GB during deep Inspiration. Painful.
  at midclavicular line + tip of 9th rib
  or costal margin.

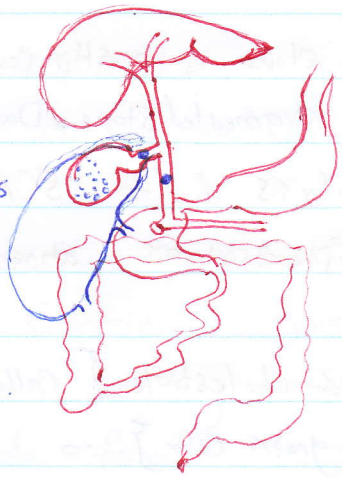
* investigation
  US , X-ray
* Mangment :-
  - Symptomatic trutment.
  - if cholecystitis occur Postpon the surgry to 2-3 month ~~and do~~
  - if pericystic abcess developed Dipazer tube for 14 days to avoid fistula. then use T-tube.

D.D of Rt upper Quadrant pain :-

1) Rt lower lobe pneumonia
2) Rt side H.F . or M.I
3) Peptic ulcer.
4) Rt Pyleonephrilitis , ~~nep~~ hydronephrosis.
5) Pheochromocytoma.
6) ~~hy~~ Colonic dyspepsia.
7) rectus sheet hematoma.

Gall bladder

- Normal it store & conscentrate the bile until secretion.
- Secretion is stimulated after fatty meal by Cholecystokinin.
- A Reflux from the duodenum into Pylorus may cuse alkaline gastritis which cause burning sensation in the stomach which usually occur during fasting.
- gallbile consist of Cholestrol and bilirubin.



1- gallbladder stone
2- Cholecystitis
3- Choledocholithiasis

* Complications:
- fistulas
- Pyocele, mucocele.
- acute pancreatitis
- Malignancy "Cholangiocarcinoma"

1 * Cholelithiasis "Gall bladder stone" :-

History - if a stone is present in the gall bladder it may elecit pain in the Rt upper quadrunt Radiating to tip of shoulder sub scapular or inter scapular area associated or precipitated by eating fatty meal ~~colicky~~ Colicky in character that comes & goes not continuous this is "Biliary colick"

- associated by Nausea & vomiting.

* Causes :-

① if the stone is mostly composed of bilimbin { called pigmented stone → Dark colored } :-

- hemolysis due to SCA, thalesemia, Spherocytosis, abnormal or mechanical valve.

② if it was cholestrole { called cholestrol stone → Yellowish-green color } :-

- hyperlipidemia, Crohn's disease, Diabetic, obesety, use of oral Contraceptive pills.

So causes are metabolic, hormonal, ...

* Investigation :-
  Ultrasound, x-ray.

* Maneyment :-
  Syptomatic tt.

* Now if the stone get stacked in the cystic duct it leads to Acute cholecystitis

2 * Acute cholecystitis :-

History :-
- Pain is similar but more localized & become duller.
  The new thing is that now it is "Continous" constant".
- Nausea, vomiting anorexia toward fatty meal.
- low grade fever

Examination :-
- Positive Murphy's sign.
- Rigidity & tenderness.

- This develop due to obstruction which causes stasis of bile & inflammation result . Mucocele

- Investigation :-
  - Ultrasound , xray
  - CBC W.B.C ↑

- Management :-

1 - Symptomatic treatment .

Morphin , I.V fluid , mitronidazole .

2 - then a surgry is done after 2-3 month

~~while after doing~~ Laproscopic cholec

-ch

* if pericystic abcess is developed then a Dipazer tube is introduced followby T-tube for 14 days then removed .

all This done to avoid fistula .

* if pt during this two month still having multiple attacks an emergen surgry is initiated to avoid fistala or Per

Complication :-

Perforation & fistula formation :-

1) if Perforated into the colon pt will vomit Stool

2) if Perforated into the duodenum the stone will pass until reach the ileocecal valve & obstruction result called gall stone ileus.

Now if the stone didn't obstruct the cystic duct but obstruct the common Bile duct instead leading to Choledochlithiasis

3* Choledocolithiasis "obstuctive Jaundice" :-

- Pt feel Mild Rt upper quadrant pain has the same radiation but now is associated with epigastric pain.

- Jaundice "Sclera ectnes."
- Pruritis. "Scratch mark in abdomine"
- Nausea, vomiting.

- Pale stool, dark urine
- Sweating → B.S under skin
- discomfort & fullness, fatigue.
- arrythmia sis B.S → S.A node

Pt may complain of breathlessness which more a Fatigue than dyspnea due to fullness & discomfort caused by hydrohepatitis which push the Diaphragm & stretch galsolium Capsule of the liver.

In obstructive Jaundice there is ↑ conjugated bilirubin

Examination :-

- Murphy sign may be Positive.
- Sclera eetnes
- Scratch mark over the abdomen.
- Pt look ill "exested face".
- Distension due to aesophysia.

Investigations:-

- CBC — WBC ↑
- LFT — AST, ALT normal
  ALF, GGT ↑
  ↑ Direct bilirubin.
- Ultrasound
- X-ray

Mangment:-

- Laproscopic choledoclictomy.
- ERCP "Endoscopic retrograde cholangiography"
  for diagnosis & therapy.
  By sphincterotomy.

Complication:-

Ascending cholangitis :-
the GI bacteria such as E.coli, Pseudomonas, enterococci... ~~ascend~~ ascend thru C.B.D to the site of obstruction & colonize there.

this is an emergency as it may lead to sepsis. Septic shock
ulter mental status

History - characterized By Charchot's Triads
- fever *
- Pain
- Juandice
- Signs & symptoms of septic shock.
↑ Temprature ↑ PR warm extremit

- investigation :-
- Lft same
- CBC WBC >12 000 Shift to left
- U/Sonogramd
- Blood culture & sensitivity

- Mangment :-
- I.V fluid
- Antibiotics
- ERCP diagnostic & therapeutic.
& T-tube for drinage.

D.D:- of Rt upper quadrant Pain:-

1) Rt lowerlobe pneumonia
2) Rt side H.F or M.I
3) perforated peptic ulcer.
4) Rt Pyelonephritis or hydronephrosis
5) Colonic dyspepsia
6) pheochromocytoma
7) rectus sheet hematoma.

- 5F
- Murphy's sign at midclavicular line + tip of 9th rib.

Ob. Jaundice

- Pt should be well prepared for Surgery otherwise Pt ~~may~~ undergo Renal shut down.
- also take the gynecology History to Exclude or prove SCA.

Ultrasound :-

1) Dilated Radicals "canalicalie" → obstruction in biliary tree.
2) Stone
3) thickness of wall of bile duct.
4) Dilated or obstructed cystic duct
5) Sclerosis of C.B.D → sign of Previous inflammation.

Q :-

PTC

Portal H.T

. Drug History

ratio

F ICB

Oshner shirine regimen.

T-tube cholangiography.

Intestinal obstruction

i) Dynamic & adynamic :

- obstruction of small intestine.
- Gallstone ilius.
- obstruction of large intestine.
- Valvulus of → sigmoid colon or Caecal.
- intussusception.
- hernia
- Paralytic ilius.
- Adhesion

Pancreatitis.

acut pancreatitis causes :-

- Alcohol
- Trauma
- autoimmune
- Gallstone
- Drgs :- nitroimidazole furosemide thiazide
- hyper triglyceridemia.

History :-

- epigastric pain radiating to the back & left loin.
  Sever aggrivated by movement
  relieved by sitting up, leaning forword
  lying on the side with chest knee position.

- area of maximum pain & tenderness is in the center of abdomine.
- Nausea, vomiting
- weakness
- fever
- hiccughs

Signs :- - Cullen sign → Echymosis in around the umbilicus.
- Gray turner sign → Echymosis on the flank.
- tenderness, Repound tenderness
- garding, abdominal distention.

Investigations :- - Amylase / Lipase more specific.
- hypocalcemia
- Ultrasound
- CT scan.
- abdominal X-ray → Sentor sign
↓ Colon cut off.

management :- - I.V Fluid
- analgesic avoid morphine. spasm of oddi sphincter
- Bowel rest
- Nasogastric tube succession
- electrolyte → Ca, K
- Nutrition.
- Antibiotics.

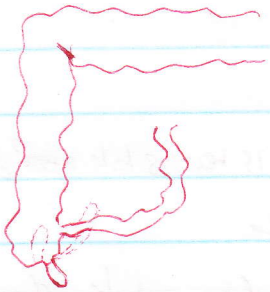
Complications ⇒ 1) Pancreatic pseudocyst 3) sepsis
2) Peritonitis

* Pancreatic pseudocyst is felt as mass in the epigastrium ~~Pain~~ tender & tympany on percussion "Gastric gas"
+ appear on 7th day & need drainage or medical therapy.

- Acute pancreatitis is reversible ~~acute~~ while chronic is ~~irreversible~~.
- ~~Acute has no jaundice while chronic may have.~~
- chronic ~~has~~ loss of appetite & loss of weigh as well.
- Jaundice in acute is not uncommon. because gallstone is one of the most common cause of acute pancreatitis
- Pt look well if acute as it is sudden but look very ill if it was fever

Appendicitis :-

- it is inflammation of the appendix.
- appendix → has origin → Post. medial surface of Cec
  tip → Free → - retrocecal
  - retroileal
  - ~~retro~~ pelvic
  - ~~peri~~ iliac.



- Causes :-
  fecolith
  tomer
  foriogn body
  lymphoid follicles.

- any age but more common in the young

History :-

- Pain :-
  - Periumblical $\xrightarrow{4-6\text{hrs}}$ Rt iliac fossa
    relieved by drawing legs up. thigh
- Nausea & vomiting
- anroxia
- Constipation (Rarely diarrhia

Examination :-

- Tenderness Maximumly at Macburney Point
- Rebound tenderness
- pain increase by movement even shaking the bed.
- pt looks ill & lies still.
- Pain ↑ by coughing "Dunphy sign"
- Rousing' sign
- obturator sign
- iliopsoase sign
- Guarding

Investigation :- only if there is doubt.

- U/S - WBC count - CT Scan

Complication :-

- gangrenous — WBC ↑↑ > 18,000
- Perforation → Peritonitis → rigidity + dif
  intense
  ↓
  mass "walled by omentum"
- fistula.

* D.D :-

- Ectopic pregnancy
- ovarian mass
- obstruction "intussussection"
- Gastro intinitis
- tonsilitis
- Meckle diverticulitis
- Cecal Ca.
- Crohn's disease.

Management :-

emergent appendectomy.

Abdominal examination

- Inspection:-

1- Contour „shape" : flat, extranded, scafoid.

2- movement : - palsation - valvulus.
- peristalsis - type of breathing.

3- Marks : - scar - scratch - cautery

4- mass.

5- costal margine :- Normal, sharp, abtuse.

6- hernial orifice : epigastric, umbilical, Para umbilical
inguinal, femoral.

7- hair distribution:- - musculin - feminin - Normal.

8- Genitalia:-

9- Lumber area

10- umbilical area :-
- Site : central
- shape : everted inverted
- Deviation : upward/down/lateral.
- Color
- hernia
- Discharge

11- Up raising test:-

to determine whether the mass is superficial or Intra-abdominal.

By up raising test → mass → visible → superficial
↓ disappear → Intra-abdominal

Palpation:-

- Superficial:-

look for:- mass
- muscle : Relax, gurding, tense.
- Temprature
- Tenderness

- Deep:-

look for:- mass
muscle
temprature
tenderness

for the mass determine:-

- Site
- Size
- Shape
- Surface
- Fix- Free mobile
- Compress

- pulsatile / transmitted. - cross midline
- borders.

3) Spleen and Liver, kidney.

- percussion Dull
- Auscultation ~~for?~~ :-
  Bruit, Bowel sounds, venous hum.

Breast Cancer:-

- more common in females.
- more aggressive in male.

* Risk factors :-
  - Sex female
  - hormonal factors
  - genetic factors
  - early menarch
  - Late menopause
  - ~~Eat~~ Delay of 1st pregnancy.
  - Smoking
  - Obesity
  - high class Individuals.

* features of Ca :-
  - Discharge from nipple "Serous or serosanguineous."
  - Lump or enlarge breast
  - change in the color
  - ulcerations.
  - Lymph node involvment
  - Invasion the chest wall or skin.

- feel Pain → Deep and constant.
- Eczema or Paget's disease of the nipple.

* Sarcoma :-
fibrosarcoma, cysticsarcoma, Liomyosarcoma, Rabdomyosarcoma.

~~fibrom~~
cystosarcoma "=Brodie's disease" :-
- cystic degeneration of fibroadenoma
- Skin over the tomer → ulceration
  ulcer " healthy edg, pouting out, base is the tomer "
- fungated tomer.
- breast is firm, enlarged veins, thin skin.

Liver abcess

* D.D.-

Subphrenic abcess.

* Causes :-

- amoebic abcess
- From Gut : typhoid, T.B, actinomycosis, hydatid, Crohn disease, U.C, Colonic ca. ;
- From biliary ~~obstruction~~ infection.
- Septicemia
- Penetrating injury

* Complication :-

- perforation → Peritonitis.
- pleural ~~infection~~ effusion.
- changes in Lung, Pleura, intestine, Peritonium.

* History :-

fever, rigor, pain in Rt upper quadrant ~~tenderness~~, fullness.

Examination :-

- enlarged Liver.
- tenderness

Example :-

Amoebic Liver abcess :-

- due to Amoebic dysentry.
- fever rigor pain & fullness
- tender enlarged Liver.
- may irritate the lower lobe of Lung or Pleura leading to :-
  - Pleural effusion.
  - Coughing of chocolate colored sputum.
- may rupture & lead to acute peritonitis.
- may form amoeboma in the cecum or rectum.
- Treatment :- Antibiotics.

Necrotizing fasciitis :-

- infection of the fascia & subcutaneous tissue.
- Etiology :-
  - I.M or I.V injections
  - Surgical procedures
  - Insect Bite
  - Interventional procedure Ex. catheterization, Laparoscopy ...
  - abrasions

Risk factors :-

- HIV
- D.M
- alcoholism
- Leukemia, lymphoma

Organisms :-

- most common ⇒ group A streptococci or Staph. aureus.
- Clostridium Perfringis.

aerobes or anaerobs.

History :-

- Severe Pain & tenderness
- malaise, malaise
- fever

Examination :-

- erythema
- Necrosis, gangrenous
- bullae

Complications :-

- Septic shock.
- limb loss.

Madora foot.

- an infection of the foot, a granulomatous infection
  Chronic "
- Etiology:-
  1) pt walky barefoot with minor abration on a dust.
  2) agricultures on knee shulders, hand, back by contact with uncleaned dirty vegetables.
- organism:-
  Fungi → actinomycetoma
  eumycetoma
- History:-
  - a painless firm nodule appear in the sole & enlarge with time while others appear.
  - a vesicle develop on the nodule & rupture → (forming sinus) → Discharge of "Purulent, mucoid" has granules
  - Secondary bacterial infection causes: enlargment of the foot.

- the granules are red, yellow or black
  black → spread to subcutaneous
  yellow, red → " " bones, muscles

- Not associated with lymphadenitis or blood borne spread.
- Nerves & tendons are not involved.

D.D;-

- T.B
- syphilis
- kaposi's sarcoma

Deep vein thrombosis

- Venous system :-

  Superficial :-

  long saphinous

  short .

  Deep :-

  Popliteal

  superficial + Deep femoral

  connected by perforating veins

- the veins has values + muscle contraction that prevent back flow of blood by the effect of gravity.

DVT :-

* risk factors :.

- female - pregnancy - recent surgery
- obese - > 40 years - immobility
- Coagulable disorders - ~~Drug abuser~~ - varicose vein
- History of DVT or Pul. embolism.

* Pathophysiology :-

2 or more of the Virtchow triad.

1) Endothilial injury
2) Coagulable state
3) venous stasis.

* History :-

Swelling
tenderness
pain
mild fever
erythema
ulceration, varicose vein later.

etiology :-

- Dry abuse.
- pelvic fracture.
- " surgry.
- hip replacement.

* Examination

- Do the usual examination
- Swelling
- prominence of vein on Dorsum of foot
- purpule color on skin.
- Ankle odema or whole leg.

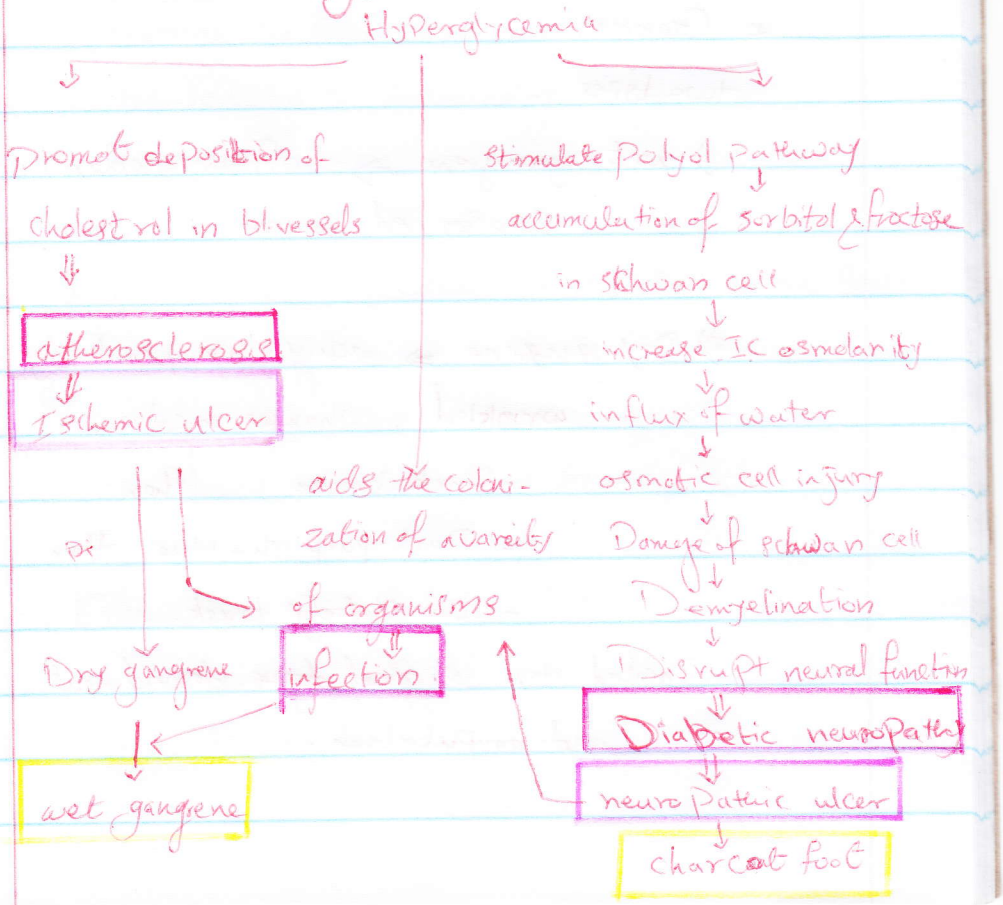
popliteal ↙ femoral ↘

Diabetic foot

Clinical presentation are :-

- ulcer → Ischemic and/or neuropathic
- Charcot's joint
- Gangrene

Pathophysiology :-



* Charcot's Joint :-

Acute → Swelling, erythema, raised skin temperature, Joint effusion, bone resorption.

Characterize by :-

Pathological Fracture, Joint dislocation and Fragmentation of articular cartilage.

* Gangrene :-

two types :-

1) wet gangrene ⇒ offensive odor, swollen, red, warm.

2) Dry gangrene ⇒ achy pain, cold, dry wrinkled, changes in color :-

- Dark brown then
- Dark purplish-blue then
- Completely black

Treated by surgical debridment and amputation.

* Ulcers :-

Q: How to examin ulcers?

Answer :-

- Site
- Shape
- Base
- edge
- Discharge
- Size: width / lenght
- margin
- Borders
- Floor
- Color
- examine the local lymph node.
- See relation to sourrounding tissue.
- General examination.

Note: the only one done by Palpation is the Base to determine 1) tenderness 2) consistancy 3) Induration 4) Discharge.

Others are determind by Inspection.

Examination of a diabetic foot :-

I Recommend OSCE vedios.

* Investigation :-

- Blood sugar.
- Lipid profile
- Renal function
- HB A1c
- Dopler, Doplex US
- Simple x-ray

Cellulitis and Erysepillus

Cellulitis	erysepillus
- Head, extermities, neck	- face, extermities.
- warm erythematous	- Hot erythematous
ill defind plaques	- well defined.
- vesicles, bullus, pastule, necrosis	
- Odematous, tender	- indurated, tender
- fever, chills, nausea vomiting, malaise.	
- lymphangitis, lymphadenopathy.	
- Post inflamamatary pigmentation.	

- proceeded by atrauma, abrasion, Tinea pedis
  ⇒ Port of entry of bacteria S. ~~Pyogenous~~.
  S. aeures, S. Pyogenous, ...

- Treatment :-
  - elevation
  - anticoagulent.
  - analgesic, antipyretic.
  - Antibiotic. → crystaline Penicilline.
  - Daphtone.

Hernias

- is a protrusion of a viscus through a normal or an abnormal - congenital or acquired - defect in the wall that contain it.

- there may be a History of straining or heavy lifting and obesity.

- Types :-

  Inguinal, femoral, umbilical, paraumbilical. } most common.

  - epigastric
  - incisional
  - obturator
  - lumbar
  - spigelian.

- Clinical presentation :-
  - lump ± local discomfort.
  - Complicated ⇒ obstructed, strangulated

* obstructed hernia → irreducable, may be due to adhesions of the gut or omentum in a long standing sac.

- leading to the onset of ~~colicky~~ colicky abdominal pain, constipation, vomiting and distension.

* strangulated hernia → the B. supply of to the sac is impared. After which the gut become atonic and perforate. occasionally the content may beleome infected.

3 important physical signs:-

1) reducable.
2) visible and Pl palpable on cough impulse.
3) " " " on up-raising test.

Note:-

it could be classified into :-

- Direct → Starting in the weaker medial post. wall of the inguinal canal medial to the inferior epigastric artery through Hesselbach's triangle.
- Indirect → Starting at the deep inguinal ring passing through the Canal to the scrotum.

Q - How to examin a hernia ?

- inspection :-
  - Position
  - color
  - ~~Temp~~ Size
  - Shape
  - Cough impulse.
- Palpation :-
  - Temperature
  - Tenderness
  - Composition
  - Reducibility
- percussion :-
  - tympanic → gas
  - dull → Ascitic fluid
- Auscultation :-
  - bowel sounds → gut
  - absent → omentocele, strangulated.
- regional lymph node.
- relation to surrounding tissue

- general and abdominal examination.

if patient describe hernia But yet no lump is found → - re-examine at standing after they've walked or go up stairs.

- re-examine after a month if still Not detected.
- re-examine less frequently until an abnormality is found or symptoms disapeear.

D.D of inguinal hernia :-

- Femoral hernia
- hydrocele.
- Undestended testis
- Lipoma of the cord.

Note: hernia is visible on standing, straining and cough.

reducable by laying or by hand press.